

CLAIMS

We claim:

1. An apparatus for cooking a food item therein comprising:
5 a housing; and
a heating element operably coupled to the housing, the heating element having a drain hole.
2. The apparatus of claim 1 wherein the heating element is a gas burner.
3. The apparatus of claim 1 wherein the heating element has a bottom surface and the
drain hole is located in the bottom surface.
- 10 4. The apparatus of claim 1, further comprising an igniter.
5. The apparatus of claim 4 wherein the igniter is connected to the heating element.
6. The apparatus of claim 1 wherein the heating element has an angled configuration in
the housing.
7. The apparatus of claim 1 further comprising a cleaning system having an outlet in
15 communication with an interior of the housing.
8. An apparatus for cooking a food item therein comprising:
a housing defining an interior, the housing having a bottom surface; and
a heating element operably coupled to the housing to heat the housing, the heating
element having a first end and a second end, the second end positioned closer to the bottom
20 surface than the first end, the heating element further having a drain hole.
9. The apparatus of claim 8, wherein the drain hole is proximate the second end of the
heating element.
10. The apparatus of claim 8 wherein the heating element is a gas burner.
11. The apparatus of claim 8, further comprising an igniter.
- 25 12. The apparatus of claim 11 wherein the igniter is connected to the heating element.
13. The apparatus of claim 8 wherein a portion of the heating element is hollow.
14. The apparatus of claim 13 wherein the heating element has a plurality of apertures.
15. The apparatus of claim 8 wherein the second end is approximately 1/4-inch closer to
the bottom surface than the first end.

16. An apparatus for cooking a food item therein comprising:
a housing defining an interior, the housing having a bottom surface;
a heating element operably coupled to the housing, the heating element having a first
end and a second end, the second end positioned closer to the bottom surface than the first end,
5 the heating element further having a drain hole; and
a cleaning system having an outlet in communication with the interior.
17. An apparatus for cooking a food item therein comprising:
a housing having a portion made of a material comprising a blackbody radiator, the
housing defining an interior adapted to receive the food item, the portion having an interior
10 surface;
a burner operably coupled to the housing, the burner having a first end and a second
end, the first end raised above the second end, the heating element further having a drain hole;
and
a cleaning system having an outlet in communication with the interior.
- 15 18. An apparatus for cooking a food item therein comprising:
a housing defining an interior adapted to receive the food item;
a heating element operably coupled to the housing; and
a cleaning system having a first outlet in communication with the interior, the cleaning
system adapted to spray liquid into the interior to clean the apparatus.
- 20 19. The apparatus of claim 18 wherein the apparatus further comprises a center shaft
operably connected to the housing, wherein the outlet is operably connected to the center shaft.
20. The apparatus of claim 19 wherein the cleaning system further comprises a reservoir
and a first delivery conduit operably connecting the reservoir to the first outlet.
21. The apparatus of claim 20 wherein the cleaning system further comprises a first pump
25 operably connected to the first delivery conduit to draw liquid from the reservoir, through the
first delivery conduit and to the first outlet.
22. The apparatus of claim 18 further comprising a rinsing system having a second outlet in
communication with the interior, the rinsing system adapted to spray liquid into the interior to
rinse the apparatus.

23. The apparatus of claim 22 wherein the rinsing system further comprises a rotary arm, wherein the outlet is operably connected to the rotary arm.

24. The apparatus of claim 23 wherein the rinsing system further comprises a water source and a second delivery conduit operably connecting the water source to the second outlet.

5 25. The apparatus of claim 24 wherein the rinsing system further comprises a second pump adapted to draw water from the water source, through the second delivery conduit, and to the first outlet.

26. The apparatus of claim 24 wherein the second pump is connected to a pressurized water source.

10 27. The apparatus of claim 18 wherein the heating element is a blackbody radiator.

28. The apparatus of claim 18 wherein the heating element is a burner.

29. The apparatus of claim 28 wherein the burner has a drain hole.

30. The apparatus of claim 28 wherein the burner is angled within the housing.

15 31. The apparatus of claim 28 further comprising a baffle positioned in the interior of the housing in communication with the burner.

32. The apparatus of claim 21 further comprising a rinsing system having a second outlet in communication with the interior, the rinsing system adapted to spray liquid into the interior to rinse the apparatus.

20 33. The apparatus of claim 32 wherein the rinsing system further comprises a rotary arm, wherein the outlet is operably connected to the rotary arm.

34. The apparatus of claim 33 wherein the cleaning system further comprises a water source and a second delivery conduit operably connecting the water source to the second outlet.

25 35. The apparatus of claim 34 wherein the rinsing system further comprises a second pump adapted to draw water from the water source, through the second delivery conduit, and to the first outlet.

36. The apparatus of claim 35 wherein the heating element is a burner.

37. The apparatus of claim 36 wherein the burner is angled within the housing.

38. The apparatus of claim 37 wherein the burner has a drain hole.

39. The apparatus of claim 38 further comprising a baffle positioned in the interior of the housing in communication with the burner.

40. The apparatus of claim 39 further comprising a blackbody radiator positioned within the interior.

5 41. The apparatus of claim 40 wherein the blackbody radiator is suspended in the interior.

42. The apparatus of claim 41 further comprising a self-cleaning filter.

43. The apparatus of claim 42 wherein the self-cleaning filter is operably connected to both the cleaning system and rinsing system.

10 44. The apparatus of claim 43 wherein the pressure in the rinsing system is greater than the pressure in the cleaning system.

45. The apparatus of claim 44 wherein the pressure in the second pump is greater than the pressure in the first pump.

46. An apparatus for cooking a food item therein comprising:

15 a housing defining an interior adapted to receive the food item;

a heating element operably coupled to the housing; and

a cleaning system having a first outlet in communication with the interior, the cleaning system adapted to spray liquid into the interior to clean the apparatus, and

means for controlling the cleaning system based upon the temperature in the interior.

47. An apparatus for cooking a food item therein comprising:

20 a housing defining an interior adapted to receive the food item;

a heating element operably coupled to the housing; and

a cleaning system having a first outlet in communication with the interior, the cleaning system adapted to spray liquid into the interior to clean the apparatus, and

a baffle operably positioned in the interior proximate the burner.

25 48. An apparatus for cooking a food item therein comprising:

a housing defining an interior adapted to receive the food item;

a blackbody radiator suspended within the interior of the housing; and

a heating element operably coupled to the radiator to heat the interior.

49. The apparatus of claim 48 wherein the blackbody radiator emits radiation towards the food item generally within the 3-10 μm wavelength.
50. The apparatus of claim 48 wherein the housing includes a crossbeam, and a portion of the blackbody radiator rests on the crossbeam.
- 5 51. The apparatus of claim 48 further comprising a plurality of fasteners connecting the blackbody radiator to the housing.
52. The apparatus of claim 48 wherein housing has a ceiling and the blackbody radiator is suspended from the ceiling.
53. The apparatus of claim 48 further comprising a plurality of fasteners connecting the
10 blackbody radiator to the ceiling.
54. The apparatus of claim 48 wherein the blackbody radiator has a curvilinear configuration.
55. The apparatus of claim 48 wherein a space is maintained between the blackbody radiator and an inner surface of the housing.
- 15 56. The apparatus of claim 48 wherein a space is maintained between a coiling of the housing and an upper surface of the blackbody radiator.